

Sequence Listing

<110> Baker, Kevin
 Botstein, David
 Eaton, Dan
 Ferrara, Napoleone
 Filvaroff, Ellen
 Gerritsen, Mary
 Goddard, Audrey
 Godowski, Paul
 Grimaldi, Christopher
 Gurney, Austin
 Hillan, Kenneth
 Kljavin, Ivar
 Napier, Mary
 Roy, Margaret
 Tumas, Daniel
 Wood, William

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35 40 45
Asp Asp Asp Asp Asp Glu Asp Asn Ser Leu Phe Pro Thr Arg Glu
50 55 60
Pro Arg Ser His Phe Phe Pro Phe Asp Leu Phe Pro Met Cys Pro
65 70 75
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80 85 90
Gly Leu Thr Ser Val Pro Thr Asn Ile Pro Phe Asp Thr Arg Met
95 100 105
Leu Asp Leu Gln Asn Asn Lys Ile Lys Glu Ile Lys Glu Asn Asp
110 115 120
Phe Lys Gly Leu Thr Ser Leu Tyr Gly Leu Ile Leu Asn Asn Asn
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Lys Leu Thr Lys Ile His Pro Lys Ala Phe Leu Thr Thr Lys Lys
140 145 150
Leu Arg Arg Leu Tyr Leu Ser His Asn Gln Leu Ser Glu Ile Pro
155 160 165
Leu Asn Leu Pro Lys Ser Leu Ala Glu Leu Arg Ile His Glu Asn
170 175 180
Lys Val Lys Lys Ile Gln Lys Asp Thr Phe Lys Gly Met Asn Ala
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Leu His Val Leu Glu Met Ser Ala Asn Pro Leu Asp Asn Asn Gly
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 Arg Gly Ala Ala Gly Cys Thr Phe Gly Gly Lys Val Tyr Ala Leu
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 Asp Glu Thr Trp His Pro Asp Leu Gly Gln Pro Phe Gly Val Met
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00944362 083101

Arg Cys Val Leu Cys Ala Cys Glu Ala	Pro Gln Trp Gly Arg Arg	80	85	90
Thr Arg Gly Pro Gly Arg Val Ser Cys Lys Asn Ile Lys Pro Glu		95	100	105
Cys Pro Thr Pro Ala Cys Gly Gln Pro Arg Gln Leu Pro Gly His		110	115	120
Cys Cys Gln Thr Cys Pro Gln Glu Arg Ser Ser Ser Glu Arg Gln		125	130	135
Pro Ser Gly Leu Ser Phe Glu Tyr Pro Arg Asp Pro Glu His Arg		140	145	150
Ser Tyr Ser Asp Arg Gly Glu Pro Gly Ala Glu Glu Arg Ala Arg		155	160	165
Gly Asp Gly His Thr Asp Phe Val Ala Leu Leu Thr Gly Pro Arg		170	175	180
Ser Gln Ala Val Ala Arg Ala Arg Val Ser Leu Leu Arg Ser Ser		185	190	195
Leu Arg Phe Ser Ile Ser Tyr Arg Arg Leu Asp Arg Pro Thr Arg		200	205	210
Ile Arg Phe Ser Asp Ser Asn Gly Ser Val Leu Phe Glu His Pro		215	220	225
Ala Ala Pro Thr Gln Asp Gly Leu Val Cys Gly Val Trp Arg Ala		230	235	240
Val Pro Arg Leu Ser Leu Arg Leu Leu Arg Ala Glu Gln Leu His		245	250	255
Val Ala Leu Val Thr Leu Thr His Pro Ser Gly Glu Val Trp Gly		260	265	270
Pro Leu Ile Arg His Arg Ala Leu Ala Ala Glu Thr Phe Ser Ala		275	280	285
Ile Leu Thr Leu Glu Gly Pro Pro Gln Gln Gly Val Gly Gly Ile		290	295	300
Thr Leu Leu Thr Leu Ser Asp Thr Glu Asp Ser Leu His Phe Leu		305	310	315
Leu Leu Phe Arg Gly Leu Leu Glu Pro Arg Ser Gly Gly Leu Thr		320	325	330
Gln Val Pro Leu Arg Leu Gln Ile Leu His Gln Gly Gln Leu Leu		335	340	345
Arg Glu Leu Gln Ala Asn Val Ser Ala Gln Glu Pro Gly Phe Ala		350	355	360
Glu Val Leu Pro Asn Leu Thr Val Gln Glu Met Asp Trp Leu Val				

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Leu Gln Ser Val Leu Cys Gly Ala Asp Ala Leu Ile Pro Val Gln 410	415	420
Thr Gly Ala Ala Gly Ser Ala Ser Leu Thr Leu Leu Gly Asn Gly 425	430	435
Ser Leu Ile Tyr Gln Val Gln Val Val Gly Thr Ser Ser Glu Val 440	445	450
Val Ala Met Thr Leu Glu Thr Lys Pro Gln Arg Arg Asp Gln Arg 455	460	465
Thr Val Leu Cys His Met Ala Gly Leu Gln Pro Gly Gly His Thr 470	475	480
Ala Val Gly Ile Cys Pro Gly Leu Gly Ala Arg Gly Ala His Met 485	490	495
Leu Leu Gln Asn Glu Leu Phe Leu Asn Val Gly Thr Lys Asp Phe 500	505	510
Pro Asp Gly Glu Leu Arg Gly His Val Ala Ala Leu Pro Tyr Cys 515	520	525
Gly His Ser Ala Arg His Asp Thr Leu Pro Val Pro Leu Ala Gly 530	535	540
Ala Leu Val Leu Pro Pro Val Lys Ser Gln Ala Ala Gly His Ala 545	550	555
Trp Leu Ser Leu Asp Thr His Cys His Leu His Tyr Glu Val Leu 560	565	570
Leu Ala Gly Leu Gly Gly Ser Glu Gln Gly Thr Val Thr Ala His 575	580	585
Leu Leu Gly Pro Pro Gly Thr Pro Gly Pro Arg Arg Leu Leu Lys 590	595	600
Gly Phe Tyr Gly Ser Glu Ala Gln Gly Val Val Lys Asp Leu Glu 605	610	615
Pro Glu Leu Leu Arg His Leu Ala Lys Gly Met Ala Ser Leu Met 620	625	630
Ile Thr Thr Lys Gly Ser Pro Arg Gly Glu Leu Arg Gly Gln Val 635	640	645
His Ile Ala Asn Gln Cys Glu Val Gly Gly Leu Arg Leu Glu Ala 650	655	660

Ala Gly Ala Glu Gly Val Arg Ala Leu Gly Ala Pro Asp Thr Ala	665	670	675
Ser Ala Ala Pro Pro Val Val Pro Gly Leu Pro Ala Leu Ala Pro	680	685	690
Ala Lys Pro Gly Gly Pro Gly Arg Pro Arg Asp Pro Asn Thr Cys	695	700	705
Phe Phe Glu Gly Gln Gln Arg Pro His Gly Ala Arg Trp Ala Pro	710	715	720
Asn Tyr Asp Pro Leu Cys Ser Leu Cys Thr Cys Gln Arg Arg Thr	725	730	735
Val Ile Cys Asp Pro Val Val Cys Pro Pro Pro Ser Cys Pro His	740	745	750
Pro Val Gln Ala Pro Asp Gln Cys Cys Pro Val Cys Pro Glu Lys	755	760	765
Gln Asp Val Arg Asp Leu Pro Gly Leu Pro Arg Ser Arg Asp Pro	770	775	780
Gly Glu Gly Cys Tyr Phe Asp Gly Asp Arg Ser Trp Arg Ala Ala	785	790	795
Gly Thr Arg Trp His Pro Val Val Pro Pro Phe Gly Leu Ile Lys	800	805	810
Cys Ala Val Cys Thr Cys Lys Gly Gly Thr Gly Glu Val His Cys	815	820	825
Glu Lys Val Gln Cys Pro Arg Leu Ala Cys Ala Gln Pro Val Arg	830	835	840
Val Asn Pro Thr Asp Cys Cys Lys Gln Cys Pro Val Gly Ser Gly	845	850	855
Ala His Pro Gln Leu Gly Asp Pro Met Gln Ala Asp Gly Pro Arg	860	865	870
Gly Cys Arg Phe Ala Gly Gln Trp Phe Pro Glu Ser Gln Ser Trp	875	880	885
His Pro Ser Val Pro Pro Phe Gly Glu Met Ser Cys Ile Thr Cys	890	895	900
Arg Cys Gly Ala Gly Val Pro His Cys Glu Arg Asp Asp Cys Ser	905	910	915
Leu Pro Leu Ser Cys Gly Ser Gly Lys Glu Ser Arg Cys Cys Ser	920	925	930
Arg Cys Thr Ala His Arg Arg Pro Pro Glu Thr Arg Thr Asp Pro	935	940	945
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<400> 12
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cagggggact ggtcctcctg gaggagatgc tcgccttggg gaataatcac 950
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<210> 15
 <211> 737
 <212> PRT
 <213> Homo Sapien

<400> 15
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 20 25 30
 Ser Ser Leu Ala Asn Pro Val Pro Ala Ala Pro Leu Ser Ala Pro
 35 40 45
 Gly Pro Cys Ala Ala Gln Pro Cys Arg Asn Gly Gly Val Cys Thr
 50 55 60
 Ser Arg Pro Glu Pro Asp Pro Gln His Pro Ala Pro Ala Gly Glu
 65 70 75
 Pro Gly Tyr Ser Cys Thr Cys Pro Ala Gly Ile Ser Gly Ala Asn
 80 85 90
 Cys Gln Leu Val Ala Asp Pro Cys Ala Ser Asn Pro Cys His His
 95 100 105
 Gly Asn Cys Ser Ser Ser Ser Ser Ser Ser Asp Gly Tyr Leu

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110	115	120
Cys Ile Cys Asn Glu Gly Tyr Glu Gly	Pro Asn Cys Glu Gln Ala	135
125	130	
Leu Pro Ser Leu Pro Ala Thr Gly Trp	Thr Glu Ser Met Ala Pro	150
140	145	
Arg Gln Leu Gln Pro Val Pro Ala Thr	Gln Glu Pro Asp Lys Ile	165
155	160	
Leu Pro Arg Ser Gln Ala Thr Val Thr	Leu Pro Thr Trp Gln Pro	180
170	175	
Lys Thr Gly Gln Lys Val Val Glu Met	Lys Trp Asp Gln Val Glu	195
185	190	
Val Ile Pro Asp Ile Ala Cys Gly Asn	Ala Ser Ser Asn Ser Ser	210
200	205	
Ala Gly Gly Arg Leu Val Ser Phe Glu	Val Pro Gln Asn Thr Ser	225
215	220	
Val Lys Ile Arg Gln Asp Ala Thr Ala	Ser Leu Ile Leu Leu Trp	240
230	235	
Lys Val Thr Ala Thr Gly Phe Gln Gln	Cys Ser Leu Ile Asp Gly	255
245	250	
Arg Ser Val Thr Pro Leu Gln Ala Ser	Gly Gly Leu Val Leu Leu	270
260	265	
Glu Glu Met Leu Ala Leu Gly Asn Asn	His Phe Ile Gly Phe Val	285
275	280	
Asn Asp Ser Val Thr Lys Ser Ile Val	Ala Leu Arg Leu Thr Leu	300
290	295	
Val Val Lys Val Ser Thr Cys Val Pro	Gly Glu Ser His Ala Asn	315
305	310	
Asp Leu Glu Cys Ser Gly Lys Gly Lys	Cys Thr Thr Lys Pro Ser	330
320	325	
Glu Ala Thr Phe Ser Cys Thr Cys Glu	Glu Gln Tyr Val Gly Thr	345
335	340	
Phe Cys Glu Glu Tyr Asp Ala Cys Gln	Arg Lys Pro Cys Gln Asn	360
350	355	
Asn Ala Ser Cys Ile Asp Ala Asn Glu	Lys Gln Asp Gly Ser Asn	375
365	370	
Phe Thr Cys Val Cys Leu Pro Gly Tyr	Thr Gly Glu Leu Cys Gln	390
380	385	
Ser Lys Ile Asp Tyr Cys Ile Leu Asp	Pro Cys Arg Asn Gly Ala	405
395	400	

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Thr Cys Ile Ser	Ser Leu Ser Gly Phe	Thr Cys Gln Cys Pro	Glu
410	415		420
Gly Tyr Phe Gly	Ser Ala Cys Glu Glu	Lys Val Asp Pro Cys	Ala
425	430		435
Ser Ser Pro Cys	Gln Asn Asn Gly Thr	Cys Tyr Val Asp Gly	Val
440	445		450
His Phe Thr Cys	Asn Cys Ser Pro Gly	Phe Thr Gly Pro Thr	Cys
455	460		465
Ala Gln Leu Ile	Asp Phe Cys Ala Leu	Ser Pro Cys Ala His	Gly
470	475		480
Thr Cys Arg Ser	Val Gly Thr Ser Tyr	Lys Cys Leu Cys Asp	Pro
485	490		495
Gly Tyr His Gly	Leu Tyr Cys Glu Glu	Glu Tyr Asn Glu Cys	Leu
500	505		510
Ser Ala Pro Cys	Leu Asn Ala Ala Thr	Cys Arg Asp Leu Val	Asn
515	520		525
Gly Tyr Glu Cys	Val Cys Leu Ala Glu	Tyr Lys Gly Thr His	Cys
530	535		540
Glu Leu Tyr Lys	Asp Pro Cys Ala Asn	Val Ser Cys Leu Asn	Gly
545	550		555
Ala Thr Cys Asp	Ser Asp Gly Leu Asn	Gly Thr Cys Ile Cys	Ala
560	565		570
Pro Gly Phe Thr	Gly Glu Glu Cys Asp	Ile Asp Ile Asn Glu	Cys
575	580		585
Asp Ser Asn Pro	Cys His His Gly Gly	Ser Cys Leu Asp Gln	Pro
590	595		600
Asn Gly Tyr Asn	Cys His Cys Pro His	Gly Trp Val Gly Ala	Asn
605	610		615
Cys Glu Ile His	Leu Gln Trp Lys Ser	Gly His Met Ala Glu	Ser
620	625		630
Leu Thr Asn Met	Pro Arg His Ser Leu	Tyr Ile Ile Ile Gly	Ala
635	640		645
Leu Cys Val Ala	Phe Ile Leu Met Leu	Ile Ile Leu Ile Val	Gly
650	655		660
Ile Cys Arg Ile	Ser Arg Ile Glu Tyr	Gln Gly Ser Ser Arg	Pro
665	670		675
Ala Tyr Glu Glu	Phe Tyr Asn Cys Arg	Ser Ile Asp Ser Glu	Phe
680	685		690
Ser Asn Ala Ile	Ala Ser Ile Arg His	Ala Arg Phe Gly Lys	Lys

695

700

705

Ser Arg Pro Ala Met Tyr Asp Val Ser Pro Ile Ala Tyr Glu Asp
710 715 720

Tyr Ser Pro Asp Asp Lys Pro Leu Val Thr Leu Ile Lys Thr Lys
725 730 735

Asp Leu

<210> 16
<211> 43
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide Probe

<400> 16
tgtaaaacga cggccagtta aatagacctg caattattaa tct 43

<210> 17
<211> 41
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide Probe

<400> 17
caggaaacag ctatgaccac ctgcacacct gcaaattccat t 41

<210> 18
<211> 508
<212> DNA
<213> Homo Sapien

<400> 18
ctctggaagg tcacggccac aggattccaa cagtgcctcc tcatagatgg 50
acgaaagtgt gacccccctt tcaggctttc agggggactg gtctcctgg 100
aggagatgct cgccttgggg aataatcact ttattggttt tgtgaatgat 150
tctgtgacta agtctattgt ggctttgcgc ttaactctgg tggatgaagg 200
cagcacctgt gtgccggggg agagtcacgc aatgacttg gagggttcag 250
gaaaaggaaa atgcaccacg aagccgtcag aggcaacttt ttctgtacc 300
tgtgaggagc agtacgtggg tactttctgt gaagaatacg atgcttgcca 350
gaggaaacct tgccaaaaca acgcgagctg tattgatgca aatgaaaagc 400
aagatgggag caatttcacc tgtgtttgcc ttctgggtta tactggagag 450
ctttgccaac cgaactgaga ttggagcgaa cgacctacac cgaactgaga 500

09941862 083101

taggggag 508

<210> 19
<211> 508
<212> DNA
<213> Homo Sapien

<400> 19
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acgaaagtgt gacccccctt tcaggctttc agggggactg gtcctcctgg 100
aggagatgct cgccttgggg aataatcact ttattggttt tgtgaatgat 150
tctgtgacta agtctattgt ggctttgcgc ttaactctgg tggggaagg 200
cagcacctgt gtgccggggg agagtcacgc aaatgacttg gagtgttcag 250
gaaaaggaaa atgcaccacg aagccgtcag aggcaacttt ttcctgtacc 300
tgtgaggagc agtacgtggg tactttctgt gaagaatacg atgcttgcca 350
gaggaaacct tgccaaaaca acgcgagctg tattgatgca aatgaaaagc 400
aagatgggag caatttcacc tgtgtttgcc ttcctgggta tactggagag 450
ctttgccaac cgaactgaga ttggagcgaa cgacctacac cgaactgaga 500

taggggag 508

<210> 20
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide Probe

<400> 20
ctctggaagg tcacggccac agg 23

<210> 21
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 21
ctcagttcgg ttggcaaagc tctc 24

<210> 22
<211> 69
<212> DNA
<213> Artificial Sequence

<220>

09944862 033404

<223> Synthetic oligonucleotide probe

<400> 22
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gcttttgccaa ccgaactga 69

<210> 23

<211> 1520

<212> DNA

<213> Homo Sapien

<400> 23

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acaccacgcc agggcccccc agagccctca ccacgtggg cgccccaga 100

gcccacacca tgccggggcac ctacgtctcc tcgaccacac tcagtagtcc 150

cagcaccag ggcctgcaag agcaggcacg ggcctgatg cgggacttcc 200

cgctcgtgga cggccacaac gacctgcccc tggctctaag gcaggtttac 250

cagaaagggc tacaggatgt taacctgcgc aatttcagct acggccagac 300

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cctatgtgcc atgccagacc caggaccggg atgccctgcg cctcaccctg 400

gagcagattg acctcatacg ccgcatgtgt gctcctatt ctgagctgga 450

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<210> 24
<211> 433
<212> PRT
<213> Homo Sapien

<400> 24
Met Pro Gly Thr Tyr Ala Pro Ser Thr Thr Leu Ser Ser Pro Ser
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Thr Gln Gly Leu Gln Glu Gln Ala Arg Ala Leu Met Arg Asp Phe
20 25 30
Pro Leu Val Asp Gly His Asn Asp Leu Pro Leu Val Leu Arg Gln
35 40 45
Val Tyr Gln Lys Gly Leu Gln Asp Val Asn Leu Arg Asn Phe Ser
50 55 60
Tyr Gly Gln Thr Ser Leu Asp Arg Leu Arg Asp Gly Leu Val Gly
65 70 75
Ala Gln Phe Trp Ser Ala Tyr Val Pro Cys Gln Thr Gln Asp Arg
80 85 90
Asp Ala Leu Arg Leu Thr Leu Glu Gln Ile Asp Leu Ile Arg Arg
95 100 105
Met Cys Ala Ser Tyr Ser Glu Leu Glu Leu Val Thr Ser Ala Lys
110 115 120
Ala Leu Asn Asp Thr Gln Lys Leu Ala Cys Leu Ile Gly Val Glu
125 130 135
Gly Gly His Ser Leu Asp Asn Ser Leu Ser Ile Leu Arg Thr Phe
140 145 150
Tyr Met Leu Gly Val Arg Tyr Leu Thr Leu Thr His Thr Cys Asn
155 160 165
Thr Pro Trp Ala Glu Ser Ser Ala Lys Gly Val His Ser Phe Tyr
170 175 180

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Asn Asn Ile Ser	Gly 185	Leu Thr Asp Phe	Gly 190	Glu Lys Val Val	Ala 195
Glu Met Asn Arg	Leu 200	Gly Met Met Val	Asp 205	Leu Ser His Val	Ser 210
Asp Ala Val Ala	Arg 215	Arg Ala Leu Glu	Val 220	Ser Gln Ala Pro	Val 225
Ile Phe Ser His	Ser 230	Ala Ala Arg Gly	Val 235	Cys Asn Ser Ala	Arg 240
Asn Val Pro Asp	Asp 245	Ile Leu Gln Leu	Leu 250	Lys Lys Asn Gly	Gly 255
Val Val Met Val	Ser 260	Leu Ser Met Gly	Val 265	Ile Gln Cys Asn	Pro 270
Ser Ala Asn Val	Ser 275	Thr Val Ala Asp	His 280	Phe Asp His Ile	Lys 285
Ala Val Ile Gly	Ser 290	Lys Phe Ile Gly	Ile 295	Gly Gly Asp Tyr	Asp 300
Gly Ala Gly Lys	Phe 305	Pro Gln Gly Leu	Glu 310	Asp Val Ser Thr	Tyr 315
Pro Val Leu Ile	Glu 320	Glu Leu Leu Ser	Arg 325	Gly Trp Ser Glu	Glu 330
Glu Leu Gln Gly	Val 335	Leu Arg Gly Asn	Leu 340	Leu Arg Val Phe	Arg 345
Gln Val Glu Lys	Val 350	Gln Glu Glu Asn	Lys 355	Trp Gln Ser Pro	Leu 360
Glu Asp Lys Phe	Pro 365	Asp Glu Gln Leu	Ser 370	Ser Ser Cys His	Ser 375
Asp Leu Ser Arg	Leu 380	Arg Gln Arg Gln	Ser 385	Leu Thr Ser Gly	Gln 390
Glu Leu Thr Glu	Ile 395	Pro Ile His Trp	Thr 400	Ala Lys Leu Pro	Ala 405
Lys Trp Ser Val	Ser 410	Glu Ser Ser Pro	His 415	Met Ala Pro Val	Leu 420
Ala Val Val Ala	Thr 425	Phe Pro Val Leu	Ile 430	Leu Trp Leu	

<210> 25

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 25
agttctggtc agcctatgtg cc 22

<210> 26
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 26
cgtgatgggtg tctttgtcca tggg 24

<210> 27
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 27
ctccaccaat cccgatgaac ttgg 24

<210> 28
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 28
gagcagattg acctcatagc ccgcatgtgt gcctcctatt ctgagctgga 50

<210> 29
<211> 1416
<212> DNA
<213> Homo Sapien

<400> 29
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gatecgcggc cggaattct aaaccaacat gccgggcacc tacgctccct 100
cgaccacact cagtagtccc agcaccacgg gcctgcaaga gcaggcacgg 150
gccctgatgc gggacttccc gctcgtggac ggccacaacg acctgccct 200
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tgccctgcgc ctaccctgg agcagattga cctcatagc ccgcatgtgtg 400

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 cagtctcaga gtccctcccc caccctgaca aaactcacac atgcccaccg 1350
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 aaaaccaag gacacc 1416

<210> 30
 <211> 446
 <212> PRT
 <213> Homo Sapien

<400> 30
 Met Pro Gly Thr Tyr Ala Pro Ser Thr Thr Leu Ser Ser Pro Ser
 1 5 10 15
 Thr Gln Gly Leu Gln Glu Gln Ala Arg Ala Leu Met Arg Asp Phe
 20 25 30
 Pro Leu Val Asp Gly His Asn Asp Leu Pro Leu Val Leu Arg Gln
 35 40 45
 Val Tyr Gln Lys Gly Leu Gln Asp Val Asn Leu Arg Asn Phe Ser

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50	55	60
Tyr Gly Gln Thr Ser Leu Asp Arg Leu Arg Asp Gly Leu Val Gly		
65	70	75
Ala Gln Phe Trp Ser Ala Tyr Val Pro Cys Gln Thr Gln Asp Arg		
80	85	90
Asp Ala Leu Arg Leu Thr Leu Glu Gln Ile Asp Leu Ile Arg Arg		
95	100	105
Met Cys Ala Ser Tyr Ser Glu Leu Glu Leu Val Thr Ser Ala Lys		
110	115	120
Ala Leu Asn Asp Thr Gln Lys Leu Ala Cys Leu Ile Gly Val Glu		
125	130	135
Gly Gly His Ser Leu Asp Asn Ser Leu Ser Ile Leu Arg Thr Phe		
140	145	150
Tyr Met Leu Gly Val Arg Tyr Leu Thr Leu Thr His Thr Cys Asn		
155	160	165
Thr Pro Trp Ala Glu Ser Ser Ala Lys Gly Val His Ser Phe Tyr		
170	175	180
Asn Asn Ile Ser Gly Leu Thr Asp Phe Gly Glu Lys Val Val Ala		
185	190	195
Glu Met Asn Arg Leu Gly Met Met Val Asp Leu Ser His Val Ser		
200	205	210
Asp Ala Val Ala Arg Arg Ala Leu Glu Val Ser Gln Ala Pro Val		
215	220	225
Ile Phe Ser His Ser Ala Ala Arg Gly Val Cys Asn Ser Ala Arg		
230	235	240
Asn Val Pro Asp Asp Ile Leu Gln Leu Leu Lys Lys Asn Gly Gly		
245	250	255
Val Val Met Val Ser Leu Ser Met Gly Val Ile Gln Cys Asn Pro		
260	265	270
Ser Ala Asn Val Ser Thr Val Ala Asp His Phe Asp His Ile Lys		
275	280	285
Ala Val Ile Gly Ser Lys Phe Ile Gly Ile Gly Gly Asp Tyr Asp		
290	295	300
Gly Ala Gly Lys Phe Pro Gln Gly Leu Glu Asp Val Ser Thr Tyr		
305	310	315
Pro Val Leu Ile Glu Glu Leu Leu Ser Arg Gly Trp Ser Glu Glu		
320	325	330
Glu Leu Gln Gly Val Leu Arg Gly Asn Leu Leu Arg Val Phe Arg		
335	340	345

Gln Val Glu Lys Val Gln Glu Glu Asn Lys Trp Gln Ser Pro Leu
 350 355 360
 Glu Asp Lys Phe Pro Asp Glu Gln Leu Ser Ser Ser Cys His Ser
 365 370 375
 Asp Leu Ser Arg Leu Arg Gln Arg Gln Ser Leu Thr Ser Gly Gln
 380 385 390
 Glu Leu Thr Glu Ile Pro Ile His Trp Thr Ala Lys Leu Pro Ala
 395 400 405
 Lys Trp Ser Val Ser Glu Ser Ser Pro His Pro Asp Lys Thr His
 410 415 420
 Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser
 425 430 435
 Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
 440 445

<210> 31
 <211> 1790
 <212> DNA
 <213> Homo Sapien

<400> 31
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 cccggcagcg ccggccccat gcccgccggc cgcgggggccc ccgcccacca 150
 atccgcgcgg cgcccgccgc cgttgctgcc cctgctgctg ctgctctgcg 200
 tcctcggggc gccgcgagcc ggatcaggag cccacacagc tgtgatcagt 250
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 tcaacgggcg ccgctgccc cctgagctct cccgtgtact caacgcctcc 400
 accttggtc tggcctggc caacctcaat ggggtccaggc agcggtcggg 450
 ggacaacctc gtgtgccacg cccgtgacgg cagcatcctg gctggctcct 500
 gcctctatgt tggcctgccc ccagagaaac ccgtcaacat cagctgctgg 550
 tccaagaaca tgaaggactt gacctgccgc tggacgccag gggccacagg 600
 ggagaccttc ctccacacca actactccct caagtacaag cttaggtggg 650
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 tgccacatcc ccaaggacct ggctctcttt acgcctatg agatctgggt 750
 ggaggccacc aaccgcctgg gctctgcccg ctccgatgta ctcacgctgg 800

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atatactgga tgtggtgacc acggaccccc cgcccgaagt gcacgtgagc 850
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 tcttgccgcc tggccggcct gaaacccggc accgtgtact tcgtgcaagt 1050
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 gccggtgcgg cgcgagctca agcagttcct gggctggctc aagaagcacg 1250
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 atgcagaagt cgcacaagac ccgcaaccag gacgagggga tctgcccctc 1350
 gggcagacgg ggcacggcga gaggtcctgc cagataagct gtaggggctc 1400
 aggccaccct ccttgccacg tggagacgca gaggccgaac ccaaactggg 1450
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 ctgggggtggc ccttgagctc caacggccat aacagctctg actcccacgt 1550
 gagggcacct ttgggtgcac ccagtggtgt gtgtgtgtgt gtgtgaggg 1600
 tggttgagtt gcctagaacc cctgccaggg ctgggggtga gaaggggagt 1650
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 tgagctattt aggtgctgtg attgtgaaaa aaaaaaaaaa aaaaaaaaaa 1750
 aaaaaaaaaa aaaaaaaaaa aaaaacaaaa aaaaaaaaaa 1790

<210> 32
 <211> 422
 <212> PRT
 <213> Homo Sapien

<400> 32
 Met Pro Ala Gly Arg Arg Gly Pro Ala Ala Gln Ser Ala Arg Arg
 1 5 10 15
 Pro Pro Pro Leu Leu Pro Leu Leu Leu Leu Leu Cys Val Leu Gly
 20 25 30
 Ala Pro Arg Ala Gly Ser Gly Ala His Thr Ala Val Ile Ser Pro
 35 40 45
 Gln Asp Pro Thr Leu Leu Ile Gly Ser Ser Leu Leu Ala Thr Cys
 50 55 60

Ser Val His Gly Asp Pro Pro Gly Ala Thr Ala Glu Gly Leu Tyr
65 70 75

Trp Thr Leu Asn Gly Arg Arg Leu Pro Pro Glu Leu Ser Arg Val
80 85 90

Leu Asn Ala Ser Thr Leu Ala Leu Ala Leu Ala Asn Leu Asn Gly
95 100 105

Ser Arg Gln Arg Ser Gly Asp Asn Leu Val Cys His Ala Arg Asp
110 115 120

Gly Ser Ile Leu Ala Gly Ser Cys Leu Tyr Val Gly Leu Pro Pro
125 130 135

Glu Lys Pro Val Asn Ile Ser Cys Trp Ser Lys Asn Met Lys Asp
140 145 150

Leu Thr Cys Arg Trp Thr Pro Gly Ala His Gly Glu Thr Phe Leu
155 160 165

His Thr Asn Tyr Ser Leu Lys Tyr Lys Leu Arg Trp Tyr Gly Gln
170 175 180

Asp Asn Thr Cys Glu Glu Tyr His Thr Val Gly Pro His Ser Cys
185 190 195

His Ile Pro Lys Asp Leu Ala Leu Phe Thr Pro Tyr Glu Ile Trp
200 205 210

Val Glu Ala Thr Asn Arg Leu Gly Ser Ala Arg Ser Asp Val Leu
215 220 225

Thr Leu Asp Ile Leu Asp Val Val Thr Thr Asp Pro Pro Pro Asp
230 235 240

Val His Val Ser Arg Val Gly Gly Leu Glu Asp Gln Leu Ser Val
245 250 255

Arg Trp Val Ser Pro Pro Ala Leu Lys Asp Phe Leu Phe Gln Ala
260 265 270

Lys Tyr Gln Ile Arg Tyr Arg Val Glu Asp Ser Val Asp Trp Lys
275 280 285

Val Val Asp Asp Val Ser Asn Gln Thr Ser Cys Arg Leu Ala Gly
290 295 300

Leu Lys Pro Gly Thr Val Tyr Phe Val Gln Val Arg Cys Asn Pro
305 310 315

Phe Gly Ile Tyr Gly Ser Lys Lys Ala Gly Ile Trp Ser Glu Trp
320 325 330

Ser His Pro Thr Ala Ala Ser Thr Pro Arg Ser Glu Arg Pro Gly
335 340 345

Pro Gly Gly Gly Ala Cys Glu Pro Arg Gly Gly Glu Pro Ser Ser

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350

355

360

Gly	Pro	Val	Arg	Arg	Glu	Leu	Lys	Gln	Phe	Leu	Gly	Trp	Leu	Lys
				365					370					375
Lys	His	Ala	Tyr	Cys	Ser	Asn	Leu	Ser	Phe	Arg	Leu	Tyr	Asp	Gln
				380					385					390
Trp	Arg	Ala	Trp	Met	Gln	Lys	Ser	His	Lys	Thr	Arg	Asn	Gln	Asp
				395					400					405
Glu	Gly	Ile	Leu	Pro	Ser	Gly	Arg	Arg	Gly	Thr	Ala	Arg	Gly	Pro
				410					415					420

Ala Arg

<210> 33

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 33

cccgcccgac gtgcacgtga gcc 23

<210> 34

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 34

tgagccagcc caggaactgc ttg 23

<210> 35

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 35

caagtgcgct gcaaccctt tggcatctat ggctccaaga aagccgggat 50

<210> 36

<211> 1771

<212> DNA

<213> Homo Sapien

<400> 36

cccacgcgtc cgctggtggt agatcgagca accctctaaa agcagtttag 50

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agtggtaaaa aaaaaaaaaa acacacccaaa cgctcgcagc cacaaaaggg 100
atgaaatttc ttctggacat cctcctgctt ctcctggtac tgatcgtctg 150
ctccctagag tccttcgtga agctttttat tcctaagagg agaaaatcag 200
tcaccggcga aatcgtgctg attacaggag ctgggcatgg aattgggaga 250
ctgactgcct atgaatttgc taaacttaaa agcaagctgg ttctctggga 300
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tacagctctg caaagaaggt gaaggcagaa attggagatg ttagtatatt 450
agtaaataat gctgggtgtag tctatacatc agatttggtt gctacacaag 500
atcctcagat tgaaaagact tttgaagtta atgtacttgc acatttctgg 550
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tgtcactgtg gcttcggcag ctggacatgt ctcgggtccc ttcttactgg 650
cttactgttc aagcaagttt gctgctgttg gatttcataa aactttgaca 700
gatgaactgg ctgccttaca aataactgga gtcaaaacaa catgtctgtg 750
tcctaatttc gtaaactctg gcttcatcaa aaatccaagt acaagtttgg 800
gacccactct ggaacctgag gaagtgttaa acaggctgat gcatgggatt 850
ctgactgagc agaagatgat ttttattcca tcttctatag cttttttaac 900
aacattggaa aggatccttc ctgagcgttt cctggcagtt ttaaaacgaa 950
aaatcagtgt taagtttgat gcagttattg gatataaaat gaaagcgcaa 1000
taagcaccta gttttctgaa aactgattta ccagggttag gttgatgtca 1050
tctaatagtg ccagaatttt aatgtttgaa cttctgtttt ttctaattat 1100
ccccatttct tcaatatcat ttttgaggct ttggcagctt tcatttacta 1150
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tacctttaga ggtgacttta aggaaaatga agaaaaagaa ccaaaatgac 1250
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cacttaatt ttgtataatt tgtgtttctt tttctgttct acataaaatc 1400
agaaacttca agctctctaa ataaaatgaa ggactatatc tagtgggtatt 1450
tcacaatgaa tatcatgaac tctcaatggg taggtttcat cctacccatt 1500

gccactctgt ttctgagag atacctcaca ttccaatgcc aaacatttct 1550
gcacagggaa gctagagggtg gatacacgtg ttgcaagtat aaaagcatca 1600
ctgggattta aggagaattg agagaatgta cccacaaatg gcagcaataa 1650
taaatggatc acacttaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1700
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1750
aaaaaaaaaa aaaaaaaaaa a 1771

<210> 37
<211> 300
<212> PRT
<213> Homo Sapien

<400> 37
Met Lys Phe Leu Leu Asp Ile Leu Leu Leu Leu Pro Leu Leu Ile
1 5 10 15
Val Cys Ser Leu Glu Ser Phe Val Lys Leu Phe Ile Pro Lys Arg
20 25 30
Arg Lys Ser Val Thr Gly Glu Ile Val Leu Ile Thr Gly Ala Gly
35 40 45
His Gly Ile Gly Arg Leu Thr Ala Tyr Glu Phe Ala Lys Leu Lys
50 55 60
Ser Lys Leu Val Leu Trp Asp Ile Asn Lys His Gly Leu Glu Glu
65 70 75
Thr Ala Ala Lys Cys Lys Gly Leu Gly Ala Lys Val His Thr Phe
80 85 90
Val Val Asp Cys Ser Asn Arg Glu Asp Ile Tyr Ser Ser Ala Lys
95 100 105
Lys Val Lys Ala Glu Ile Gly Asp Val Ser Ile Leu Val Asn Asn
110 115 120
Ala Gly Val Val Tyr Thr Ser Asp Leu Phe Ala Thr Gln Asp Pro
125 130 135
Gln Ile Glu Lys Thr Phe Glu Val Asn Val Leu Ala His Phe Trp
140 145 150
Thr Thr Lys Ala Phe Leu Pro Ala Met Thr Lys Asn Asn His Gly
155 160 165
His Ile Val Thr Val Ala Ser Ala Ala Gly His Val Ser Val Pro
170 175 180
Phe Leu Leu Ala Tyr Cys Ser Ser Lys Phe Ala Ala Val Gly Phe
185 190 195
His Lys Thr Leu Thr Asp Glu Leu Ala Ala Leu Gln Ile Thr Gly

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200	205	210
Val Lys Thr Thr Cys Leu Cys Pro Asn Phe Val Asn Thr Gly Phe		
215	220	225
Ile Lys Asn Pro Ser Thr Ser Leu Gly Pro Thr Leu Glu Pro Glu		
230	235	240
Glu Val Val Asn Arg Leu Met His Gly Ile Leu Thr Glu Gln Lys		
245	250	255
Met Ile Phe Ile Pro Ser Ser Ile Ala Phe Leu Thr Thr Leu Glu		
260	265	270
Arg Ile Leu Pro Glu Arg Phe Leu Ala Val Leu Lys Arg Lys Ile		
275	280	285
Ser Val Lys Phe Asp Ala Val Ile Gly Tyr Lys Met Lys Ala Gln		
290	295	300

<210> 38

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 38

ggtgaaggca gaaattggag atg 23

<210> 39

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 39

atcccatgca tcagcctggt tacc 24

<210> 40

<211> 48

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 40

gctggtgtag tctatacatc agatttggtt gctacacaag atcctcag 48

<210> 41

<211> 1377

<212> DNA

<213> Homo Sapien

<400> 41
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 gaaccaggac tggggtgacg gcagggcagg gggcgccctgg ccggggagaa 100
 gcgcgggggc tggagcacca ccaactggag ggtccggagt agcgagcgcc 150
 ccgaaggagg ccatcgggga gccgggaggg gggactgoga gaggacccc 200
 gcgtccgggc tcccggtgcc agcgctatga ggccactcct cgtcctgctg 250
 ctctggggcc tggcggccgg ctgccccca ctggacgaca acaagatccc 300
 cagcctctgc ccggggcacc ccggccttcc aggcacgccg ggccaccatg 350
 gcagccaggg cttgccgggc cgcgatggcc gcgacggccg cgacggcgcg 400
 cccggggctc cgggagagaa aggcgagggc gggaggccgg gactgccggg 450
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 aaaaaaaaa aaaaaaaaa aaaaaaa 1377

<210> 42

<211> 243
 <212> PRT
 <213> Homo Sapien

<400> 42

Met Arg Pro Leu Leu Val Leu Leu Leu Leu Gly Leu Ala Ala Gly
 1 5 10 15
 Ser Pro Pro Leu Asp Asp Asn Lys Ile Pro Ser Leu Cys Pro Gly
 20 25 30
 His Pro Gly Leu Pro Gly Thr Pro Gly His His Gly Ser Gln Gly
 35 40 45
 Leu Pro Gly Arg Asp Gly Arg Asp Gly Arg Asp Gly Ala Pro Gly
 50 55 60
 Ala Pro Gly Glu Lys Gly Glu Gly Gly Arg Pro Gly Leu Pro Gly
 65 70 75
 Pro Arg Gly Asp Pro Gly Pro Arg Gly Glu Ala Gly Pro Ala Gly
 80 85 90
 Pro Thr Gly Pro Ala Gly Glu Cys Ser Val Pro Pro Arg Ser Ala
 95 100 105
 Phe Ser Ala Lys Arg Ser Glu Ser Arg Val Pro Pro Pro Ser Asp
 110 115 120
 Ala Pro Leu Pro Phe Asp Arg Val Leu Val Asn Glu Gln Gly His
 125 130 135
 Tyr Asp Ala Val Thr Gly Lys Phe Thr Cys Gln Val Pro Gly Val
 140 145 150
 Tyr Tyr Phe Ala Val His Ala Thr Val Tyr Arg Ala Ser Leu Gln
 155 160 165
 Phe Asp Leu Val Lys Asn Gly Glu Ser Ile Ala Ser Phe Phe Gln
 170 175 180
 Phe Phe Gly Gly Trp Pro Lys Pro Ala Ser Leu Ser Gly Gly Ala
 185 190 195
 Met Val Arg Leu Glu Pro Glu Asp Gln Val Trp Val Gln Val Gly
 200 205 210
 Val Gly Asp Tyr Ile Gly Ile Tyr Ala Ser Ile Lys Thr Asp Ser
 215 220 225
 Thr Phe Ser Gly Phe Leu Val Tyr Ser Asp Trp His Ser Ser Pro
 230 235 240
 Val Phe Ala

<210> 43
 <211> 24

<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 43
tacaggccca gtcaggacca gggg 24

<210> 44
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 44
agccagcctc gctctcgg 18

<210> 45
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 45
gtctgcgatc aggtctgg 18

<210> 46
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 46
gaaagaggca atggattcgc 20

<210> 47
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 47
gacttacact tgccagcaca gcac 24

<210> 48
<211> 45
<212> DNA
<213> Artificial Sequence

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<220>
<223> Synthetic oligonucleotide probe

<400> 48
ggagcaccac caactggagg gtccggagta gcgagcgccc cgaag 45

<210> 49
<211> 1876
<212> DNA
<213> Homo Sapien

<400> 49
ctcttttgtc caccagccca gcctgactcc tggagattgt gaatagctcc 50
atccagcctg agaaacaagc cgggtggctg agccaggctg tgcacggagc 100
acctgacggg cccaacagac ccatgctgca tccagagacc tcccctggcc 150
gggggcatct cctggctgtg ctccctggccc tccctggcac cacctgggca 200
gaggtgtggc caccacagct gcaggagcag gctccgatgg ccggagccct 250
gaacaggaag gagagtttct tgctcctctc cctgcacaac cgcttgcgca 300
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cccgagcctg gcatccggcc tgtggcgcac cctgcaagtg ggctggaaca 450
tgcagctgct gcccgcgggc ttggcgctct ttgttgaagt ggtcagccta 500
tggtttgcag aggggcagcg gtacagccac gcggcaggag agtgtgctcg 550
caacgccacc tgcaccact acacgcagct cgtgtgggcc acctcaagcc 600
agctgggctg tgggcggcac ctgtgctctg caggccagac agcgatagaa 650
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gacaatcacc ccctataaga aggggtgcctg gtgttcgctc tgcacagcca 750
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gagtgtctgt gcgtctgtga catcggctac gggggagccc agtgtgccac 1000
caaggtgcat ttcccttcc acacctgtga cctgaggatc gacggagact 1050
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 ccacctgtct ggaacaaggg ccaggttaag accacatgcc tcatgtccaa 1600
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 gaggccagtg agggccaggg agtgagtgtt agaagaagct ggggcccttc 1700
 gcctgctttt gattgggaag atgggcttca attagatggc gaaggagagg 1750
 acaccgccag tgggccaaaa aggtgctct cttccacctg gccagaccc 1800
 tgtggggcag cggagcttcc ctgtggcatg aaccccacgg ggtattaaat 1850
 tatgaatcag ctgaaaaaaaa aaaaaa 1876

<210> 50
 <211> 455
 <212> PRT
 <213> Homo Sapien

<400> 50
 Met Leu His Pro Glu Thr Ser Pro Gly Arg Gly His Leu Leu Ala
 1 5 10 15
 Val Leu Leu Ala Leu Leu Gly Thr Thr Trp Ala Glu Val Trp Pro
 20 25 30
 Pro Gln Leu Gln Glu Gln Ala Pro Met Ala Gly Ala Leu Asn Arg
 35 40 45
 Lys Glu Ser Phe Leu Leu Leu Ser Leu His Asn Arg Leu Arg Ser
 50 55 60
 Trp Val Gln Pro Pro Ala Ala Asp Met Arg Arg Leu Asp Trp Ser
 65 70 75
 Asp Ser Leu Ala Gln Leu Ala Gln Ala Arg Ala Ala Leu Cys Gly
 80 85 90
 Ile Pro Thr Pro Ser Leu Ala Ser Gly Leu Trp Arg Thr Leu Gln
 95 100 105
 Val Gly Trp Asn Met Gln Leu Leu Pro Ala Gly Leu Ala Ser Phe

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110	115	120
Val Glu Val Val Ser Leu Trp Phe Ala	Glu Gly Gln Arg Tyr Ser	
125	130	135
His Ala Ala Gly Glu Cys Ala Arg Asn	Ala Thr Cys Thr His Tyr	
140	145	150
Thr Gln Leu Val Trp Ala Thr Ser Ser	Gln Leu Gly Cys Gly Arg	
155	160	165
His Leu Cys Ser Ala Gly Gln Thr Ala	Ile Glu Ala Phe Val Cys	
170	175	180
Ala Tyr Ser Pro Gly Gly Asn Trp Glu	Val Asn Gly Lys Thr Ile	
185	190	195
Ile Pro Tyr Lys Lys Gly Ala Trp Cys	Ser Leu Cys Thr Ala Ser	
200	205	210
Val Ser Gly Cys Phe Lys Ala Trp Asp	His Ala Gly Gly Leu Cys	
215	220	225
Glu Val Pro Arg Asn Pro Cys Arg Met	Ser Cys Gln Asn His Gly	
230	235	240
Arg Leu Asn Ile Ser Thr Cys His Cys	His Cys Pro Pro Gly Tyr	
245	250	255
Thr Gly Arg Tyr Cys Gln Val Arg Cys	Ser Leu Gln Cys Val His	
260	265	270
Gly Arg Phe Arg Glu Glu Glu Cys Ser	Cys Val Cys Asp Ile Gly	
275	280	285
Tyr Gly Gly Ala Gln Cys Ala Thr Lys	Val His Phe Pro Phe His	
290	295	300
Thr Cys Asp Leu Arg Ile Asp Gly Asp	Cys Phe Met Val Ser Ser	
305	310	315
Glu Ala Asp Thr Tyr Tyr Arg Ala Arg	Met Lys Cys Gln Arg Lys	
320	325	330
Gly Gly Val Leu Ala Gln Ile Lys Ser	Gln Lys Val Gln Asp Ile	
335	340	345
Leu Ala Phe Tyr Leu Gly Arg Leu Glu	Thr Thr Asn Glu Val Thr	
350	355	360
Asp Ser Asp Phe Glu Thr Arg Asn Phe	Trp Ile Gly Leu Thr Tyr	
365	370	375
Lys Thr Ala Lys Asp Ser Phe Arg Trp	Ala Thr Gly Glu His Gln	
380	385	390
Ala Phe Thr Ser Phe Ala Phe Gly Gln	Pro Asp Asn His Gly Leu	
395	400	405

Val Trp Leu Ser Ala Ala Met Gly Phe Gly Asn Cys Val Glu Leu
410 415 420

Gln Ala Ser Ala Ala Phe Asn Trp Asn Asp Gln Arg Cys Lys Thr
425 430 435

Arg Asn Arg Tyr Ile Cys Gln Phe Ala Gln Glu His Ile Ser Arg
440 445 450

Trp Gly Pro Gly Ser
455

<210> 51
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 51
aggaacttct ggatcgggct cacc 24

<210> 52
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 52
gggtctgggc caggtggaag agag 24

<210> 53
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 53
gccaaaggact ccttcgctg ggccacaggg gagcaccagg ccttc 45

<210> 54
<211> 2331
<212> DNA
<213> Homo Sapien

<400> 54
cggacgcgtg ggctgggagc tgcaaagcgt gtcccgcgg gtccccgagc 50
gtcccgcgcc ctgccccgc catgtcctg ctgctggggc tgtgctggg 100
gctgtccctg tgtgtggggt cgcaggaaga ggcgagagc tggggccact 150
cttcggagca ggatggactc aggggtccga ggcaagtcag actgttgag 200

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09944562 083104

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 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa a 2331

<210> 55
 <211> 694
 <212> PRT
 <213> Homo Sapien

<400> 55
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 Gly Ser Gln Glu Glu Ala Gln Ser Trp Gly His Ser Ser Glu Gln
 20 25 30
 Asp Gly Leu Arg Val Pro Arg Gln Val Arg Leu Leu Gln Arg Leu
 35 40 45
 Lys Thr Lys Pro Leu Met Thr Glu Phe Ser Val Lys Ser Thr Ile
 50 55 60
 Ile Ser Arg Tyr Ala Phe Thr Thr Val Ser Cys Arg Met Leu Asn
 65 70 75
 Arg Ala Ser Glu Asp Gln Asp Ile Glu Phe Gln Met Gln Ile Pro
 80 85 90
 Ala Ala Ala Phe Ile Thr Asn Phe Thr Met Leu Ile Gly Asp Lys
 95 100 105
 Val Tyr Gln Gly Glu Ile Thr Glu Arg Glu Lys Lys Ser Gly Asp
 110 115 120

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Arg Val Lys Glu Lys Arg Asn Lys Thr Thr Glu Glu Asn Gly Glu	125	130	135
Lys Gly Thr Glu Ile Phe Arg Ala Ser Ala Val Ile Pro Ser Lys	140	145	150
Asp Lys Ala Ala Phe Phe Leu Ser Tyr Glu Glu Leu Leu Gln Arg	155	160	165
Arg Leu Gly Lys Tyr Glu His Ser Ile Ser Val Arg Pro Gln Gln	170	175	180
Leu Ser Gly Arg Leu Ser Val Asp Val Asn Ile Leu Glu Ser Ala	185	190	195
Gly Ile Ala Ser Leu Glu Val Leu Pro Leu His Asn Ser Arg Gln	200	205	210
Arg Gly Ser Gly Arg Gly Glu Asp Asp Ser Gly Pro Pro Pro Ser	215	220	225
Thr Val Ile Asn Gln Asn Glu Thr Phe Ala Asn Ile Ile Phe Lys	230	235	240
Pro Thr Val Val Gln Gln Ala Arg Ile Ala Gln Asn Gly Ile Leu	245	250	255
Gly Asp Phe Ile Ile Arg Tyr Asp Val Asn Arg Glu Gln Ser Ile	260	265	270
Gly Asp Ile Gln Val Leu Asn Gly Tyr Phe Val His Tyr Phe Ala	275	280	285
Pro Lys Asp Leu Pro Pro Leu Pro Lys Asn Val Val Phe Val Leu	290	295	300
Asp Ser Ser Ala Ser Met Val Gly Thr Lys Leu Arg Gln Thr Lys	305	310	315
Asp Ala Leu Phe Thr Ile Leu His Asp Leu Arg Pro Gln Asp Arg	320	325	330
Phe Ser Ile Ile Gly Phe Ser Asn Arg Ile Lys Val Trp Lys Asp	335	340	345
His Leu Ile Ser Val Thr Pro Asp Ser Ile Arg Asp Gly Lys Val	350	355	360
Tyr Ile His His Met Ser Pro Thr Gly Gly Thr Asp Ile Asn Gly	365	370	375
Ala Leu Gln Arg Ala Ile Arg Leu Leu Asn Lys Tyr Val Ala His	380	385	390
Ser Gly Ile Gly Asp Arg Ser Val Ser Leu Ile Val Phe Leu Thr	395	400	405
Asp Gly Lys Pro Thr Val Gly Glu Thr His Thr Leu Lys Ile Leu			

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410	415	420
Asn Asn Thr Arg Glu Ala Ala Arg Gly Gln Val Cys Ile Phe Thr		
425	430	435
Ile Gly Ile Gly Asn Asp Val Asp Phe Arg Leu Leu Glu Lys Leu		
440	445	450
Ser Leu Glu Asn Cys Gly Leu Thr Arg Arg Val His Glu Glu Glu		
455	460	465
Asp Ala Gly Ser Gln Leu Ile Gly Phe Tyr Asp Glu Ile Arg Thr		
470	475	480
Pro Leu Leu Ser Asp Ile Arg Ile Asp Tyr Pro Pro Ser Ser Val		
485	490	495
Val Gln Ala Thr Lys Thr Leu Phe Pro Asn Tyr Phe Asn Gly Ser		
500	505	510
Glu Ile Ile Ile Ala Gly Lys Leu Val Asp Arg Lys Leu Asp His		
515	520	525
Leu His Val Glu Val Thr Ala Ser Asn Ser Lys Lys Phe Ile Ile		
530	535	540
Leu Lys Thr Asp Val Pro Val Arg Pro Gln Lys Ala Gly Lys Asp		
545	550	555
Val Thr Gly Ser Pro Arg Pro Gly Gly Asp Gly Glu Gly Asp Thr		
560	565	570
Asn His Ile Glu Arg Leu Trp Ser Tyr Leu Thr Thr Lys Glu Leu		
575	580	585
Leu Ser Ser Trp Leu Gln Ser Asp Asp Glu Pro Glu Lys Glu Arg		
590	595	600
Leu Arg Gln Arg Ala Gln Ala Leu Ala Val Ser Tyr Arg Phe Leu		
605	610	615
Thr Pro Phe Thr Ser Met Lys Leu Arg Gly Pro Val Pro Arg Met		
620	625	630
Asp Gly Leu Glu Glu Ala His Gly Met Ser Ala Ala Met Gly Pro		
635	640	645
Glu Pro Val Val Gln Ser Val Arg Gly Ala Gly Thr Gln Pro Gly		
650	655	660
Pro Leu Leu Lys Lys Pro Asn Ser Val Lys Lys Lys Gln Asn Lys		
665	670	675
Thr Lys Lys Arg His Gly Arg Asp Gly Val Phe Pro Leu His His		
680	685	690
Leu Gly Ile Arg		

<210> 56
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 56
gtgggaacca aactccggca gacc 24

<210> 57
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 57
cacatcgagc gtctctgg 18

<210> 58
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 58
agccgctcct tctccggttc atcg 24

<210> 59
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 59
tggaaggacc acttgatc agtcactcca gacagcatca gggatggg 48

<210> 60
<211> 1413
<212> DNA
<213> Homo Sapien

<400> 60
cggacgcgtg ggggtgccga catggcgagt gtagtgctgc cgagcggatc 50
ccagtgtgcg gcggcagcgg cggcggcggc gcctcccggg ctccggcttc 100
tgctgttget cttctccgcc gcggcactga tccccacagg tgatgggcag 150
aatctgttta cgaaagacgt gacagtgate gagggagagg ttgcgaccat 200

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atccccaca ggaaagttac accaccatca cagtcctggc cccaccacgt 450
aatctgatga tcgatatcca gaaagacact gcggtggaag gtgaggagat 500
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gaaacctgca gaccagcgg tatctagaag tacagtataa gcctcaagtg 750
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ctttttgttt caatgaggtg tccaactggc cctattttaga tgataaagag 1400
acagtgatat tgg 1413

<210> 61
<211> 440
<212> PRT
<213> Homo Sapien

<400> 61
Met Ala Ser Val Val Leu Pro Ser Gly Ser Gln Cys Ala Ala Ala
1 5 10 15

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T01E80-2934660

Ala Ala Ala Ala Ala	Pro Pro Gly Leu Arg	Leu Leu Leu Leu Leu	20	25	30
Phe Ser Ala Ala Ala	Leu Ile Pro Thr Gly Asp	Gly Gln Asn Leu	35	40	45
Phe Thr Lys Asp Val	Thr Val Ile Glu Gly Glu	Val Ala Thr Ile	50	55	60
Ser Cys Gln Val Asn	Lys Ser Asp Asp Ser	Val Ile Gln Leu Leu	65	70	75
Asn Pro Asn Arg Gln	Thr Ile Tyr Phe Arg	Asp Phe Arg Pro Leu	80	85	90
Lys Asp Ser Arg Phe	Gln Leu Leu Asn Phe	Ser Ser Ser Glu Leu	95	100	105
Lys Val Ser Leu Thr	Asn Val Ser Ile Ser	Asp Glu Gly Arg Tyr	110	115	120
Phe Cys Gln Leu Tyr	Thr Asp Pro Pro Gln	Glu Ser Tyr Thr Thr	125	130	135
Ile Thr Val Leu Val	Pro Pro Arg Asn Leu	Met Ile Asp Ile Gln	140	145	150
Lys Asp Thr Ala Val	Glu Gly Glu Glu Ile	Glu Val Asn Cys Thr	155	160	165
Ala Met Ala Ser Lys	Pro Ala Thr Thr Ile	Arg Trp Phe Lys Gly	170	175	180
Asn Thr Glu Leu Lys	Gly Lys Ser Glu Val	Glu Glu Trp Ser Asp	185	190	195
Met Tyr Thr Val Thr	Ser Gln Leu Met Leu	Lys Val His Lys Glu	200	205	210
Asp Asp Gly Val Pro	Val Ile Cys Gln Val	Glu His Pro Ala Val	215	220	225
Thr Gly Asn Leu Gln	Thr Gln Arg Tyr Leu	Glu Val Gln Tyr Lys	230	235	240
Pro Gln Val His Ile	Gln Met Thr Tyr Pro	Leu Gln Gly Leu Thr	245	250	255
Arg Glu Gly Asp Ala	Leu Glu Leu Thr Cys	Glu Ala Ile Gly Lys	260	265	270
Pro Gln Pro Val Met	Val Thr Trp Val Arg	Val Asp Asp Glu Met	275	280	285
Pro Gln His Ala Val	Leu Ser Gly Pro Asn	Leu Phe Ile Asn Asn	290	295	300
Leu Asn Lys Thr Asp	Asn Gly Thr Tyr Arg	Cys Glu Ala Ser Asn			

305	310	315
Ile Val Gly Lys Ala His Ser Asp Tyr	Met Leu Tyr Val Tyr Asp	
320	325	330
Pro Pro Thr Thr Ile Pro Pro Pro Thr	Thr Thr Thr Thr Thr Thr	
335	340	345
Thr Thr Thr Thr Thr Thr Ile Leu Thr	Ile Ile Thr Asp Ser Arg	
350	355	360
Ala Gly Glu Glu Gly Ser Ile Arg Ala	Val Asp His Ala Val Ile	
365	370	375
Gly Gly Val Val Ala Val Val Val Phe	Ala Met Leu Cys Leu Leu	
380	385	390
Ile Ile Leu Gly Arg Tyr Phe Ala Arg	His Lys Gly Thr Tyr Phe	
395	400	405
Thr His Glu Ala Lys Gly Ala Asp Asp	Ala Ala Asp Ala Asp Thr	
410	415	420
Ala Ile Ile Asn Ala Glu Gly Gly Gln	Asn Asn Ser Glu Glu Lys	
425	430	435
Lys Glu Tyr Phe Ile		
440		

<210> 62
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 62
 ggcttctgct gttgctcttc tccg 24

 <210> 63
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 63
 gtacactgtg accagtcagc 20

 <210> 64
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

<400> 64
atcatcacag attccccgagc 20

<210> 65
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 65
ttcaatctcc tcaccttcca ccgc 24

<210> 66
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 66
atagctgtgt ctgcgtctgc tgcg 24

<210> 67
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 67
cgcggcactg atccccacag gtgatgggca gaatctgttt acgaaagacg 50

<210> 68
<211> 2555
<212> DNA
<213> Homo Sapien

<400> 68
ggggcggtg gacgcggact cgaacgcagt tgcttcggga cccaggaccc 50
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ccctctgctg ctgccgctgc tctgctact ggccctgggg cctgggggtgc 200
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 atttattctg ggaagatgtt tttcaaactc agagacaagg actttggttt 2500
 ttgtaagaca aacgatgata tgaaggcctt ttgtaagaaa aaataaaaaa 2550
 aaaaa 2555

<210> 69
 <211> 598
 <212> PRT
 <213> Homo Sapien

<400> 69
 Met Cys Ser Arg Val Pro Leu Leu Leu Pro Leu Leu Leu Leu Leu
 1 5 10 15
 Ala Leu Gly Pro Gly Val Gln Gly Cys Pro Ser Gly Cys Gln Cys
 20 25 30
 Ser Gln Pro Gln Thr Val Phe Cys Thr Ala Arg Gln Gly Thr Thr
 35 40 45
 Val Pro Arg Asp Val Pro Pro Asp Thr Val Gly Leu Tyr Val Phe
 50 55 60
 Glu Asn Gly Ile Thr Met Leu Asp Ala Ser Ser Phe Ala Gly Leu
 65 70 75
 Pro Gly Leu Gln Leu Leu Asp Leu Ser Gln Asn Gln Ile Ala Ser
 80 85 90
 Leu Arg Leu Pro Arg Leu Leu Leu Leu Asp Leu Ser His Asn Ser
 95 100 105
 Leu Leu Ala Leu Glu Pro Gly Ile Leu Asp Thr Ala Asn Val Glu

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110	115	120
Ala Leu Arg Leu	Ala Gly Leu Gly Leu Gln Gln Leu Asp Glu Gly	135
125	130	
Leu Phe Ser Arg	Leu Arg Asn Leu His Asp Leu Asp Val Ser Asp	150
140	145	
Asn Gln Leu Glu	Arg Val Pro Pro Val Ile Arg Gly Leu Arg Gly	165
155	160	
Leu Thr Arg Leu	Arg Leu Ala Gly Asn Thr Arg Ile Ala Gln Leu	180
170	175	
Arg Pro Glu Asp	Leu Ala Gly Leu Ala Ala Leu Gln Glu Leu Asp	195
185	190	
Val Ser Asn Leu	Ser Leu Gln Ala Leu Pro Gly Asp Leu Ser Gly	210
200	205	
Leu Phe Pro Arg	Leu Arg Leu Leu Ala Ala Ala Arg Asn Pro Phe	225
215	220	
Asn Cys Val Cys	Pro Leu Ser Trp Phe Gly Pro Trp Val Arg Glu	240
230	235	
Ser His Val Thr	Leu Ala Ser Pro Glu Glu Thr Arg Cys His Phe	255
245	250	
Pro Pro Lys Asn	Ala Gly Arg Leu Leu Leu Glu Leu Asp Tyr Ala	270
260	265	
Asp Phe Gly Cys	Pro Ala Thr Thr Thr Thr Ala Thr Val Pro Thr	285
275	280	
Thr Arg Pro Val	Val Arg Glu Pro Thr Ala Leu Ser Ser Ser Leu	300
290	295	
Ala Pro Thr Trp	Leu Ser Pro Thr Ala Pro Ala Thr Glu Ala Pro	315
305	310	
Ser Pro Pro Ser	Thr Ala Pro Pro Thr Val Gly Pro Val Pro Gln	330
320	325	
Pro Gln Asp Cys	Pro Pro Ser Thr Cys Leu Asn Gly Gly Thr Cys	345
335	340	
His Leu Gly Thr	Arg His His Leu Ala Cys Leu Cys Pro Glu Gly	360
350	355	
Phe Thr Gly Leu	Tyr Cys Glu Ser Gln Met Gly Gln Gly Thr Arg	375
365	370	
Pro Ser Pro Thr	Pro Val Thr Pro Arg Pro Pro Arg Ser Leu Thr	390
380	385	
Leu Gly Ile Glu	Pro Val Ser Pro Thr Ser Leu Arg Val Gly Leu	405
395	400	

Gln Arg Tyr Leu Gln Gly Ser Ser Val	Gln Leu Arg Ser Leu Arg	410	415	420
Leu Thr Tyr Arg Asn Leu Ser Gly Pro	Asp Lys Arg Leu Val Thr	425	430	435
Leu Arg Leu Pro Ala Ser Leu Ala Glu	Tyr Thr Val Thr Gln Leu	440	445	450
Arg Pro Asn Ala Thr Tyr Ser Val Cys	Val Met Pro Leu Gly Pro	455	460	465
Gly Arg Val Pro Glu Gly Glu Glu Ala	Cys Gly Glu Ala His Thr	470	475	480
Pro Pro Ala Val His Ser Asn His Ala	Pro Val Thr Gln Ala Arg	485	490	495
Glu Gly Asn Leu Pro Leu Leu Ile Ala	Pro Ala Leu Ala Ala Val	500	505	510
Leu Leu Ala Ala Leu Ala Ala Val Gly	Ala Ala Tyr Cys Val Arg	515	520	525
Arg Gly Arg Ala Met Ala Ala Ala Ala	Gln Asp Lys Gly Gln Val	530	535	540
Gly Pro Gly Ala Gly Pro Leu Glu Leu	Glu Gly Val Lys Val Pro	545	550	555
Leu Glu Pro Gly Pro Lys Ala Thr Glu	Gly Gly Gly Glu Ala Leu	560	565	570
Pro Ser Gly Ser Glu Cys Glu Val Pro	Leu Met Gly Phe Pro Gly	575	580	585
Pro Gly Leu Gln Ser Pro Leu His Ala	Lys Pro Tyr Ile	590	595	

<210> 70
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 70
 ccctccactg cccacccgac tg 22

<210> 71
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

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<400> 71
cggttctggg gacgttaggg ctcg 24

<210> 72
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 72
ctgcccaccg tccacctgcc tcaat 25

<210> 73
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 73
aggactgccc accgtccacc tgcctcaatg ggggcacatg ccacc 45

<210> 74
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide Probe

<400> 74
acgcaaagcc ctacatctaa gccagagaga gacagggcag ctggg 45

<210> 75
<211> 1077
<212> DNA
<213> Homo Sapien

<400> 75
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gggtccccag ctcatgccag cctcatctcc tttcttgcta gccccaaag 150
ggcctccagg caacatgggg ggcccagtca gagagccggc actctcagtt 200
gccctctggt tgagttgggg ggcagctctg ggggccgtgg cttgtgccat 250
ggctctgctg acccaacaaa cagagctgca gagcctcagg agagaggtga 300
gccggctgca ggggacagga ggcccctccc agaatgggga agggatatccc 350
tggcagagtc tcccggagca gagttccgat gccctggaag cctgggagaa 400

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tggggagaga tcccggaaaa ggagagcagt gctcacccaa aaacagaaga 450
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 gcgcagggtg cttccattta caccaagggg atattctgag tgcataatt 800
 ccccgggcaa gggcgaaact taacctctct ccacatggaa ccttctctggg 850
 gtttgtgaaa ctgtgattgt gttataaaaa gtgggtccca gcttggaaga 900
 ccagggtggg tacatactgg agacagccaa gagctgagta tataaaggag 950
 agggaatgtg caggaacaga ggcattctcc tgggtttggc tccccgttcc 1000
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 cttgcttctg ttccccatgg agctccg 1077

<210> 76
 <211> 250
 <212> PRT
 <213> Homo Sapien

<400> 76
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 20 25 30
 Leu Trp Leu Ser Trp Gly Ala Ala Leu Gly Ala Val Ala Cys Ala
 35 40 45
 Met Ala Leu Leu Thr Gln Gln Thr Glu Leu Gln Ser Leu Arg Arg
 50 55 60
 Glu Val Ser Arg Leu Gln Gly Thr Gly Gly Pro Ser Gln Asn Gly
 65 70 75
 Glu Gly Tyr Pro Trp Gln Ser Leu Pro Glu Gln Ser Ser Asp Ala
 80 85 90
 Leu Glu Ala Trp Glu Asn Gly Glu Arg Ser Arg Lys Arg Arg Ala
 95 100 105
 Val Leu Thr Gln Lys Gln Lys Lys Gln His Ser Val Leu His Leu
 110 115 120

Val Pro Ile Asn Ala Thr Ser Lys Asp Asp Ser Asp Val Thr Glu
125 130 135

Val Met Trp Gln Pro Ala Leu Arg Arg Gly Arg Gly Leu Gln Ala
140 145 150

Gln Gly Tyr Gly Val Arg Ile Gln Asp Ala Gly Val Tyr Leu Leu
155 160 165

Tyr Ser Gln Val Leu Phe Gln Asp Val Thr Phe Thr Met Gly Gln
170 175 180

Val Val Ser Arg Glu Gly Gln Gly Arg Gln Glu Thr Leu Phe Arg
185 190 195

Cys Ile Arg Ser Met Pro Ser His Pro Asp Arg Ala Tyr Asn Ser
200 205 210

Cys Tyr Ser Ala Gly Val Phe His Leu His Gln Gly Asp Ile Leu
215 220 225

Ser Val Ile Ile Pro Arg Ala Arg Ala Lys Leu Asn Leu Ser Pro
230 235 240

His Gly Thr Phe Leu Gly Phe Val Lys Leu
245 250

<210> 77
<211> 2849
<212> DNA
<213> Homo Sapien

<400> 77
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ggcgcagag acctcggaga ccgcgccggg gagacggagg tgctgtgggt 100
gggggggacc tgtggctgct cgtaccgccc cccaccctcc tcttctgcac 150
tgccgtcctc cggaagacct ttcccttgc tctgtttctc tcaccgagtc 200
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gaagatgggc tcccgtggac agggactctt gctggcgtag tgccgtgctc 350
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tgccgagagg gctgaagaac aacatgaaaa atacaggccc agtcaggacc 500
aggggctccc tgcttcccgg tgcttgcgct gctgtgaccc cggtaacctc 550
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ggagaagggt gaccgcggag atcgaggcct ccaagggaaa tatggcaaaa 650

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 tccctaagtc cctctcttta aagaacttct gcgggtcaga ctctgaagcc 2750
 gagttgctgt gggcgtgccc ggaagcagag cgccacactc gctgcttaag 2800
 ctccccagc tctttccaga aaacattaaa ctcagaattg tgttttcaa 2849

<210> 78
 <211> 281
 <212> PRT
 <213> Homo Sapien

<400> 78
 Met Gly Ser Arg Gly Gln Gly Leu Leu Leu Ala Tyr Cys Leu Leu
 1 5 10 15
 Leu Ala Phe Ala Ser Gly Leu Val Leu Ser Arg Val Pro His Val
 20 25 30
 Gln Gly Glu Gln Gln Glu Trp Glu Gly Thr Glu Glu Leu Pro Ser
 35 40 45
 Pro Pro Asp His Ala Glu Arg Ala Glu Glu Gln His Glu Lys Tyr
 50 55 60
 Arg Pro Ser Gln Asp Gln Gly Leu Pro Ala Ser Arg Cys Leu Arg
 65 70 75
 Cys Cys Asp Pro Gly Thr Ser Met Tyr Pro Ala Thr Ala Val Pro
 80 85 90
 Gln Ile Asn Ile Thr Ile Leu Lys Gly Glu Lys Gly Asp Arg Gly
 95 100 105
 Asp Arg Gly Leu Gln Gly Lys Tyr Gly Lys Thr Gly Ser Ala Gly

110	115	120
Ala Arg Gly His Thr Gly Pro Lys Gly Gln Lys Gly Ser Met Gly		
125	130	135
Ala Pro Gly Glu Arg Cys Lys Ser His Tyr Ala Ala Phe Ser Val		
140	145	150
Gly Arg Lys Lys Pro Met His Ser Asn His Tyr Tyr Gln Thr Val		
155	160	165
Ile Phe Asp Thr Glu Phe Val Asn Leu Tyr Asp His Phe Asn Met		
170	175	180
Phe Thr Gly Lys Phe Tyr Cys Tyr Val Pro Gly Leu Tyr Phe Phe		
185	190	195
Ser Leu Asn Val His Thr Trp Asn Gln Lys Glu Thr Tyr Leu His		
200	205	210
Ile Met Lys Asn Glu Glu Glu Val Val Ile Leu Phe Ala Gln Val		
215	220	225
Gly Asp Arg Ser Ile Met Gln Ser Gln Ser Leu Met Leu Glu Leu		
230	235	240
Arg Glu Gln Asp Gln Val Trp Val Arg Leu Tyr Lys Gly Glu Arg		
245	250	255
Glu Asn Ala Ile Phe Ser Glu Glu Leu Asp Thr Tyr Ile Thr Phe		
260	265	270
Ser Gly Tyr Leu Val Lys His Ala Thr Glu Pro		
275	280	

<210> 79
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 79
 tacaggccca gtcaggacca gggg 24

<210> 80
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 80
 ctgaagaagt agaggccggg cacg 24

<210> 81

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<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 81
cccgtgctt gcgctgctgt gaccccggtg cctccatgta cccgg 45

<210> 82
<211> 2284
<212> DNA
<213> Homo Sapien

<400> 82
gaggagcatc cgctgcgggc ctcgcccaga ccccgccgcg gattcgccgg 50
tccttcccgc gggcgcgaca gagctgtcct cgcacctgga tggcagcagg 100
ggcgccgggg tcctctcgac gccagagaga aatctcatca tctgtgcagc 150
cttcttaaag caaactaaga ccagagggag gattatcctt gacctttgaa 200
gacaaaaact aaactgaaat ttaaaatggt cttcggggga gaaggagct 250
tgacttacac tttggtaata atttgcttcc tgacactaag gctgtctgct 300
agtcagaatt gcctcaaaaa gagtctagaa gatgttgta ttgacatcca 350
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 tccaacttaa ctttgaacac agggaatgtg tataacccta ctgcactttc 1250
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 cagtacggcc ttccatttga aaaatggctt cttatcgggt ccctgctctt 1400
 tgggtgctctg ttctggtga taggcctcgt cctcctgggt agaactcctt 1450
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 ggtcaggctg gtctcaaact cctgacctag tgateccacc tcctcggcct 1900
 cccaaagtgc tgggattaca ggcagtagcc accacagctg gcccccttct 1950
 gtttttatgtt tggtttttga gaaggaatga agtgggaacc aaattaggta 2000
 attttgggta atctgtctct aaaatattag ctaaaaacaa agctctatgt 2050
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 tatgcaaaga aacagggttag gacatctagg ttccaattca ttcacattct 2150
 tggttccaga taaaatcaac tgtttatatc aatttctaataa ggatttgctt 2200
 ttctttttat atggattcct ttaaaactta ttccagatgt agttccttcc 2250
 aattaaatat ttgaataaat cttttgttac tcaa 2284

<210> 83
 <211> 431
 <212> PRT
 <213> Homo Sapien

<400> 83
 Met Phe Phe Gly Gly Glu Gly Ser Leu Thr Tyr Thr Leu Val Ile
 1 5 10 15

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Ile Cys Phe Leu Thr Leu Arg Leu Ser Ala Ser Gln Asn Cys Leu	20	25	30
Lys Lys Ser Leu Glu Asp Val Val Ile Asp Ile Gln Ser Ser Leu	35	40	45
Ser Lys Gly Ile Arg Gly Asn Glu Pro Val Tyr Thr Ser Thr Gln	50	55	60
Glu Asp Cys Ile Asn Ser Cys Cys Ser Thr Lys Asn Ile Ser Gly	65	70	75
Asp Lys Ala Cys Asn Leu Met Ile Phe Asp Thr Arg Lys Thr Ala	80	85	90
Arg Gln Pro Asn Cys Tyr Leu Phe Phe Cys Pro Asn Glu Glu Ala	95	100	105
Cys Pro Leu Lys Pro Ala Lys Gly Leu Met Ser Tyr Arg Ile Ile	110	115	120
Thr Asp Phe Pro Ser Leu Thr Arg Asn Leu Pro Ser Gln Glu Leu	125	130	135
Pro Gln Glu Asp Ser Leu Leu His Gly Gln Phe Ser Gln Ala Val	140	145	150
Thr Pro Leu Ala His His His Thr Asp Tyr Ser Lys Pro Thr Asp	155	160	165
Ile Ser Trp Arg Asp Thr Leu Ser Gln Lys Phe Gly Ser Ser Asp	170	175	180
His Leu Glu Lys Leu Phe Lys Met Asp Glu Ala Ser Ala Gln Leu	185	190	195
Leu Ala Tyr Lys Glu Lys Gly His Ser Gln Ser Ser Gln Phe Ser	200	205	210
Ser Asp Gln Glu Ile Ala His Leu Leu Pro Glu Asn Val Ser Ala	215	220	225
Leu Pro Ala Thr Val Ala Val Ala Ser Pro His Thr Thr Ser Ala	230	235	240
Thr Pro Lys Pro Ala Thr Leu Leu Pro Thr Asn Ala Ser Val Thr	245	250	255
Pro Ser Gly Thr Ser Gln Pro Gln Leu Ala Thr Thr Ala Pro Pro	260	265	270
Val Thr Thr Val Thr Ser Gln Pro Pro Thr Thr Leu Ile Ser Thr	275	280	285
Val Phe Thr Arg Ala Ala Ala Thr Leu Gln Ala Met Ala Thr Thr	290	295	300
Ala Val Leu Thr Thr Thr Phe Gln Ala Pro Thr Asp Ser Lys Gly			

305	310	315
Ser Leu Glu Thr Ile Pro Phe Thr Glu	Ile Ser Asn Leu Thr Leu	
320	325	330
Asn Thr Gly Asn Val Tyr Asn Pro Thr	Ala Leu Ser Met Ser Asn	
335	340	345
Val Glu Ser Ser Thr Met Asn Lys Thr	Ala Ser Trp Glu Gly Arg	
350	355	360
Glu Ala Ser Pro Gly Ser Ser Ser Gln	Gly Ser Val Pro Glu Asn	
365	370	375
Gln Tyr Gly Leu Pro Phe Glu Lys Trp	Leu Leu Ile Gly Ser Leu	
380	385	390
Leu Phe Gly Val Leu Phe Leu Val Ile	Gly Leu Val Leu Leu Gly	
395	400	405
Arg Ile Leu Ser Glu Ser Leu Arg Arg	Lys Arg Tyr Ser Arg Leu	
410	415	420
Asp Tyr Leu Ile Asn Gly Ile Tyr Val	Asp Ile	
425	430	

<210> 84
 <211> 30
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 84
 agggaggatt atccttgacc tttgaagacc 30

<210> 85
 <211> 18
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 85
 gaagcaagtg cccagctc 18

<210> 86
 <211> 18
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 86
 cgggtccctg ctctttgg 18

<210> 87
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 87
 caccgtagct gggagcgcac tcac 24

<210> 88
 <211> 18
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 88
 agtgtaagtc aagctccc 18

<210> 89
 <211> 49
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 89
 gcttcctgac actaaggctg tctgctagtc agaattgcct caaaaagag 49

<210> 90
 <211> 957
 <212> DNA
 <213> Homo Sapien

<400> 90
 cctggaagat gcgcccattg gctggtggcc tgctcaaggt ggtgttcgtg 50
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 aatccctgct cttcatgggtg acctatgacg acggaagcac aagactgaat 500

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ctagtgtgat caaatcttgg tacgcagtat ttttatacca gtattttatg 900
tagtgaagat gtcaattagc aggaaactaa aatgaatgga aattcttaaa 950
aaaaaaa 957

<210> 91
<211> 235
<212> PRT
<213> Homo Sapien

<400> 91
Met Arg Pro Leu Ala Gly Gly Leu Leu Lys Val Val Phe Val Val
1 5 10 15
Phe Ala Ser Leu Cys Ala Trp Tyr Ser Gly Tyr Leu Leu Ala Glu
20 25 30
Leu Ile Pro Asp Ala Pro Leu Ser Ser Ala Ala Tyr Ser Ile Arg
35 40 45
Ser Ile Gly Glu Arg Pro Val Leu Lys Ala Pro Val Pro Lys Arg
50 55 60
Gln Lys Cys Asp His Trp Thr Pro Cys Pro Ser Asp Thr Tyr Ala
65 70 75
Tyr Arg Leu Leu Ser Gly Gly Gly Arg Ser Lys Tyr Ala Lys Ile
80 85 90
Cys Phe Glu Asp Asn Leu Leu Met Gly Glu Gln Leu Gly Asn Val
95 100 105
Ala Arg Gly Ile Asn Ile Ala Ile Val Asn Tyr Val Thr Gly Asn
110 115 120
Val Thr Ala Thr Arg Cys Phe Asp Met Tyr Glu Gly Asp Asn Ser
125 130 135
Gly Pro Met Thr Lys Phe Ile Gln Ser Ala Ala Pro Lys Ser Leu
140 145 150
Leu Phe Met Val Thr Tyr Asp Asp Gly Ser Thr Arg Leu Asn Asn
155 160 165

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Asp Ala Lys Asn Ala Ile Glu Ala Leu Gly Ser Lys Glu Ile Arg
 170 175 180
 Asn Met Lys Phe Arg Ser Ser Trp Val Phe Ile Ala Ala Lys Gly
 185 190 195
 Leu Glu Leu Pro Ser Glu Ile Gln Arg Glu Lys Ile Asn His Ser
 200 205 210
 Asp Ala Lys Asn Asn Arg Tyr Ser Gly Trp Pro Ala Glu Ile Gln
 215 220 225
 Ile Glu Gly Cys Ile Pro Lys Glu Arg Ser
 230 235

<210> 92
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 92
 aatgtgacca ctggactccc 20

<210> 93
 <211> 18
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 93
 aggcttgga ctccttc 18

<210> 94
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 94
 aagattcttg agcgattcca gctg 24

<210> 95
 <211> 47
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 95
 aatccctgct cttcatggtg acctatgacg acggaagcac aagactg 47

<210> 96
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 96
ctcaagaagc acgcgtactg c 21

<210> 97
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 97
ccaacctcag cttccgcctc tacga 25

<210> 98
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 98
catccaggct cgccactg 18

<210> 99
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

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